UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,626	06/10/2005	Alexander Cornelis Geerlings	NL 021285	8943

24737   7590   07/21/2010
PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER
AHMED, HAMDY S

ART UNIT	PAPER NUMBER
2186	

MAIL DATE	DELIVERY MODE
07/21/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/538,626	GEERLINGS ET AL.
	Examiner	Art Unit	
	HAMDY S. AHMED	2186	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>03 March 2010</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1 and 3-20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1, and 3-20</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim 2 is cancelled.

In view of the appeal Brief filed on 03/03/2010, PROSECUTION IS HEREBY REOPENED. Set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/Matt Kim/

Supervisory Patent Examiner, Art Unit 2186

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by
another filed in the United States before the invention by the applicant for patent or (2) a patent
granted on an application for patent by another filed in the United States before the invention by the
applicant for patent, except that an international application filed under the treaty defined in section
351(a) shall have the effects for purposes of this subsection of an application filed in the United States
only if the international application designated the United States and was published under Article 21(2)
of such treaty in the English language.

Claims 1, 3, 12-15 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by

McKernan (US 2001/0046196 A1).

As to claims 1 and 17, McKernan teaches a method of operating a storage device

sensitive to vibrations in an environment with a source of vibrations (e.g., see abstract 1-4,

wherein a method is provided for reading information from a rotating storage medium that allows

data to be read at high speeds; the rotation is the source of vibrations, and makes the storage

device sensitive to those vibrations), characterized in that the method comprises the following

acts: measuring the **signal** performance of the storage device (e.g., see paragraph 24, lines 19-

21, wherein the read channel processor delivers a digital bit stream with associated clocking

signals to the decoder; paragraph 25, lines 1-25, wherein the decoder performs multiple

functions, including analyzing the bit stream; and paragraph 26, lines 1-6, wherein the

various decoding operations generate information indicating an error level in the

decoded bit stream, which is communicated to the microcontroller that executes the

media-read processor's control algorithms), and when the measured performance of the storage device decreases below a pre-determined level taking action to reduce the influence of vibrations generated by the source of vibrations (e.g., see paragraph 26, lines 9-11, wherein based on reported error level, the microcontroller may send various types of commands to the servo processor; since access error rate is inversely proportional to access rate, when the access error rate goes up, it means that the access rate goes down. Therefore, when access error rate's threshold increases beyond a threshold, the access rate must drop below a threshold), wherein the **signal** performance of the storage device includes at least one of access time of the storage device, data access rate, and data storage rate (see figure 3, block 320, and paragraph 27, lines 17-23, wherein a command is forwarded from the microcontroller to the servo processor to instruct the servo processor to perform a read operation at a specified spin rate 'i', which may be an index into an array of control parameters employed by the servo processor. A function f(ER,S) is computed and compared to a threshold value T).

As to claim 3, McKernan discloses a method wherein the signal performance of the storage device is indicated by an average bit rate of the storage device (see figure 3, block 330, and paragraph 27, lines 9-13, wherein a speed parameter 'i' is initialized according to a function i=I(S) where I is an initialization function. The argument of this function, S, corresponds to a set of one or more state variables maintained in the system; one of these variables is the data access rate).

As to claim 12, McKernan discloses wherein a further lower predetermined level replaces the predetermined level when the measured performance of the storage

device is below the predetermined level during a predetermined period (see paragraph 27, lines 9-13, wherein a speed parameter 'i' is initialized according to a function i=I(S) where I is an initialization function. The argument of this function, S, corresponds to a set of one or more state variables maintained in the system; one of these variables is the data access rate).

As to claim 13, McKernan discloses wherein the act of measuring the **signal** performance of the storage device comprises an act of keeping statistics on the **signal** performance of the storage device (see figure 3, block 330, and paragraph 27, lines 9-13, wherein a speed parameter 'i' is initialized according to a function i=I(S) where I is an initialization function. The argument of this function, S, corresponds to a set of one or more state variables maintained in the system; one of these variables is the data access rate) and the action is performed when the statistics drop below the predetermined level (e.g., see paragraph 26, lines 9-11, wherein based on reported error level, the microcontroller may send various types of commands to the servo processor; since access error rate is inversely proportional to access rate, when the access error rate goes up, it means that the access rate goes down. Therefore, when access error rate's threshold increases beyond a threshold, the access rate must drop below a threshold).

As to claim 14 McKernan discloses that the statistics of the storage device include at least one of average access time of the storage device, median access time of the storage device, standards deviation of the access time of the storage device, and average bit-rate of the storage device (see figure 3, block 330, and paragraph 27, lines 9-13, wherein a speed parameter 'i' is initialized according to a function i=I(S) where I is

an initialization function. The argument of this function, S, corresponds to a set of one or

more state variables maintained in the system; one of these variables is one of average

access time of the storage device, median access time of the storage device, standards

deviation of the access time of the storage device, and average bit-rate of the storage

device).

As to claim 15, McKernan discloses wherein the storage device is a disk drive

(see abstract, lines 14-15, wherein the inventive techniques are especially applicable to

CD-ROM and DVD technology, which both employ disk drives).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claim 4 are rejected under under 35 U.S.C. 103(a) as being unpatentable over

McKernan (US 2001/0046196 A1) in view of Thornton (US 2004/0158627 A1).

As to claim 4, McKernan discloses the method of claim 1 as mentioned above.

But McKernan fails to disclose wherein the action comprises an act of providing a

message to a user to reduce the vibrations. However, Thornton discloses wherein the

action comprises an act of providing a message to a user to reduce the vibrations (see

paragraph 74, lines 32-36, wherein if the condition remains uncorrected for a specified amount of time, the report may be escalated, e.g., an alarm may be sounded, or the report may be sent to an administrative supervisor).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of McKernan by adopting the teaching of Thornton and providing a message to a user to reduce the vibrations in order to detect conditions of computer components to predict a failure (see abstract, lines 1-2).

Claims 5, 8 and 10 are rejected under under 35 U.S.C. 103(a) as being unpatentable over McKernan (US 2001/0046196 A1) in view of Kimura (patent No: 4,831,449) and further in view of Hill et al (patent No: 5,129,106).

As to claim 5, McKernan discloses the method of claim 1 as mentioned above. But McKernan fails to disclose wherein the source of vibrations is the first loudspeaker, and the loudspeaker and the storage device comprised in the same housing.

However, Kimura discloses wherein the source of vibrations is the first loudspeaker, and the loudspeaker and the storage device comprised in the same housing.

(e.g., see figure 2, elements 4B and 4A are loudspeakers in the same housing; and column 1, lines 60-66, wherein the television apparatus contains a television receiver, a video tape recorder for recording and reproducing video and audio information included in a received television signal, speakers for audibly reproducing audio information of the

television signal, and a cabinet containing the television receiver, the video tape recorder, and the speakers).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of McKernan by adopting the teaching of Kimura and having the source of vibrations be the first loudspeaker, and the loudspeaker and the storage device comprised in the same housing in order to avoid distortion of recorded video information (see column 1, lines 66-67).

But McKernan and Kimura fail to disclose wherein the action comprises an act of switching sound reproduction from the first loudspeaker to a second loudspeaker that is remote from the storage device. However, Hill discloses wherein the action comprises an act of switching sound reproduction from the first loudspeaker to a second loudspeaker that is remote from the storage device (e.g., see column 9, lines 15-26, wherein various loudspeakers in a loudspeaker system are designed to be arranged in a specific spatial arrangement, with some remote from others, for optimal sound reproduction).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the methods of McKernan and Kimura by adopting the teaching of Hill and switching sound reproduction from the first loudspeaker to a second loudspeaker that is remote from the storage device in order to deliver a relatively high acoustic output (see column 9, lines 13-14).

As to claim 8, McKernan discloses **the housing is a consumer electronics apparatus** (see abstract, lines 14-15, wherein the housing would be a CD drive or DVD player); and **storing the incoming stream of audio-visual data on a disk by the storage device** (see abstract, lines 1-4 and 15-16, wherein information is stored on and then read from a CD or DVD, both of which are used to store and reproduce audio-visual data) and that the stored stream of audio-visual data to be reproduced is stored on a disk (see abstract, lines 1-4 and 15-16, wherein information is stored on and then read from a CD or DVD, both of which are used to store and reproduce audio-visual data).

But McKernan fails to teach **the storage device is arranged to record an incoming stream of audio-visual data; the consumer electronics apparatus is arranged to reproduce the incoming stream of audio-visual data by means of a display screen and the loudspeaker; and wherein the method comprises acts of: reproducing the stored stream of audio-visual data stored on the disk by means of the display screen and loudspeaker.**

However Kimura teaches **the storage device is arranged to record an incoming stream of audio-visual data** (see column 1, lines 60-63); **the consumer electronics apparatus is arranged to reproduce the incoming stream of audio-visual data by means of a display screen and the loudspeaker** (see column 3, lines 22-40); **and wherein the method comprises the following acts: reproducing the stored stream of audio-visual data by means of the display screen and loudspeaker** (see column 3, lines 52-57**).**

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of McKernan by adopting the teaching of Kimura and having **the storage device arranged to record an incoming stream of audio-visual data; the consumer electronics apparatus arranged to reproduce the incoming stream of audio-visual data by means of a display screen and the loudspeaker; and wherein the method comprises acts of: reproducing the stored stream of audio-visual data by means of the display screen and loudspeaker** in order to avoid distortion of recorded video information (see column 1, lines 66-67).

As to claim 10, McKernan discloses that the housing is a consumer electronics apparatus arranged to reproduce audio-visual data (see abstract, lines 14-15, wherein the housing would be a CD drive or DVD player). But McKernan fails to teach that the second loudspeaker is connected to the consumer electronics apparatus. However, Kimura teaches that the second loudspeaker is connected to the consumer electronics apparatus (see figure 1, elements 4A and 4B, which are the speakers).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of McKernan by adopting the teaching of Kimura and having the second loudspeaker connected to the consumer electronics apparatus in order to avoid distortion of recorded video information (see column 1, lines 66-67).

But McKernan and Kimura fail to disclose that the second loudspeaker is not contained in the consumer electronics apparatus, and the action comprises acts of: reducing reproduction of the audio-visual data through the first loudspeaker contained in

the consumer electronics apparatus; and starting or increasing reproduction of the audio-visual data through the second loudspeaker.

However, Hill teaches that the second loudspeaker is not contained in the consumer electronics apparatus (e.g., see column 9, lines 15-26, wherein various loudspeakers in a loudspeaker system are designed to be arranged in a specific spatial arrangement, with some remote from others, for optimal sound reproduction); and the action comprises acts of : reducing reproduction of the audio-visual data through the first loudspeaker contained in the consumer electronics apparatus; and starting or increasing reproduction of the audio-visual data through the second loudspeaker(see column 8, lines 30-48, wherein sound reproduction is switched from one loudspeaker to another based on what arrangement is optimal).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the methods of McKernan and Kimura by adopting the teaching of Hill by having the second loudspeaker not contained in the consumer electronics apparatus, and the action comprise acts of: reducing reproduction of the audio-visual data through the first loudspeaker contained in the consumer electronics apparatus; and starting or increasing reproduction of the audio-visual data through the second loudspeaker in order to deliver a relatively high acoustic output (see column 9, lines 13-14).

Claim 9 is rejected under under 35 U.S.C. 103(a) as being unpatentable over McKernan
(US 2001/0046196 A1) in view of Kimura (patent No: 4,831,449) and further in view of
Hill et al (patent No: 5,129,106) in further view of Thornton (US 2004/0158627 A1).

As to claim 9, McKernan discloses an action to reduce the influence of vibrations
generated by the source of vibrations (see abstract, lines 4-9, wherein imperfections in
a rotating storage device can cause vibration and wobble; the action taken is to reduce
the speed in order that the imperfect storage medium can be read reliably). But
McKernan fails to disclose that the action comprises an act of advising a user. However,
Thornton discloses that the action comprises an act of advising a user (see paragraph
74, lines 32-36, wherein if the condition remains uncorrected for a specified amount of
time, the report may be escalated, e.g., an alarm may be sounded, or the report may be
sent to an administrative supervisor).

Therefore, it would have been obvious to one of ordinary skill in the art at the
time of the invention to modify the method of McKernan by adopting the teaching of
Thornton and advising a user in order to detect conditions of computer components to
predict a failure (see abstract, lines 1-2).

But McKernan and Thornton both fail to teach that the action comprises an act of
advising a user to render the incoming stream of audio-visual data instead of the stored
stream of audio-visual data. However Kimura teaches that the action comprises an act
of advising a user to render the incoming stream of audio-visual data instead of the
stored stream of audio-visual data (see column 3, lines 46-56, wherein the signal is

received by the television receiver and may be recorded on a tape cassette and

simultaneously displayed; the audio signals having the resonant frequency of the video

recorder are suppressed during recording to prevent "image shake". When recording

and reproducing simultaneously then, it is better to display the incoming stream to the

screen).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention to modify the teachings of McKernan and Thornton by adopting the

teaching of Kimura and rendering the incoming stream of audio-visual data instead of

the stored stream of audio-visual data in order to avoid distortion of recorded video

information (see column 1, lines 66-67).

Claims 6, 16 and 18-20 are rejected under under 35 U.S.C. 103(a) as being

unpatentable over McKernan (US 2001/0046196 A1) in view of Kimura (patent No:

4,831,449).

As to claim 6, McKernan disclose the method of claim 1 as mentioned above. But

McKernan disclose wherein the source of vibrations is a loudspeaker and the action

comprising an act of reducing the volume of the sound produced by the loudspeaker.

However, Kimura discloses wherein the source of vibrations is a loudspeaker (e.g., see

column 3, lines 58-64, wherein as the audio output of the speaker increases, this

causes the components in the cabinet to vibrate) and the action comprising an act of

reducing the volume of the sound produced by the loudspeaker (see column 4, lines 46-54, wherein an audio control circuit may cause a decrease in the audio output of the speakers, which is equivalent to decreasing the volume).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of McKernan by adopting the teaching of Kimura and having the source of vibrations be a loudspeaker and having the action comprise an act of reducing the volume of the sound produced by the loudspeaker in order to avoid distortion of recorded video information (see column 1, lines 66-67).

As to claim 16 McKernan discloses claim 1 as mentioned above. But McKernan does not teach wherein the action comprising an act of halting activities related to the storage device other than storage and retrieval of audio-visual data. However, Kimura discloses an act of halting activities related to the storage device other than storage and retrieval of audio-visual data (see figure 1, element 5, wherein the storage device is the video recorder (VTR), a device that performs operations exclusively).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of McKernan by adopting the teaching of Kimura by including an act of halting activities related to the storage device other than storage and retrieval of audio-visual data in order to avoid distortion of recorded video information (see column 1, lines 66-67).

As to claim 18, McKernan discloses a consumer electronics apparatus comprising a storage device arranged to store the stream of audio-visual data on a disk (see abstract, lines 1-4 and 15-16, wherein information is stored on and then read from

a CD or DVD, both of which are used to store and reproduce audio-visual data); a

source of vibrations (see abstract, lines 4-7, wherein the imperfections in a rotating

storage device can cause vibration and wobble)); and McKernan teaches the circuit as

claimed in claim 17 for operating the storage device as mentioned above.

But McKernan fails to disclose a consumer electronics apparatus comprising:

means for receiving a stream of audio-visual data. However, Kimura discloses a

consumer electronics apparatus comprising: means for receiving a stream of audio-

visual data (see abstract, line 1, wherein the television apparatus includes a television

receiver).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention to modify the method of McKernan by adopting the teaching of

Kimura and having a consumer electronics apparatus comprising: means for receiving a

stream of audio-visual data in order to avoid distortion of recorded video information

(see column 1, lines 66-67).

As to claim 19, McKernan wherein the source of vibrations is a disk drive

arranged to spin a disk in operation (see abstract, lines 1-9).

As to claim 20, McKernan disclose the apparatus of claims 17 and 18 as

mentioned above. But McKernan fails to disclose wherein the source of vibrations is a

loudspeaker. However, Kimura discloses wherein the source of vibrations is a

loudspeaker (e.g., see column 3, lines 59-64).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention to modify the method of McKernan by adopting the teaching of

Kimura and having the source of vibrations be a loudspeaker in order to avoid distortion

of recorded video information (see column 1, lines 66-67).

Claims 7 and 11 are rejected under under 35 U.S.C. 103(a) as being unpatentable over

McKernan (US 2001/0046196 A1) in view of Thornton (US 2004/0158627 A1).

As to claim 7, McKernan discloses wherein when the measured **signal**

performance decreases below the pre-determined level (e.g., see paragraph 26, lines 9-

11, wherein based on reported error level, the microcontroller may send various types of

commands to the servo processor; since access error rate is inversely proportional to

access rate, when the access error rate goes up, it means that the access rate goes

down. Therefore, when access error rate's threshold increases beyond a threshold, the

access rate must drop below a threshold), no action is taken (see paragraph 32, lines 8-

14, wherein if after corrective action is taken, the data is still deemed to be of insufficient

quality, a command is issued which causes the drive to be put into an inactive state with

the disk at rest).

But McKernan fails to disclose that the environmental temperature of the storage

device is above a further pre-determined level. However, Thornton discloses that the

environmental temperature of the storage device is above a further pre-determined level

(see paragraph 62, lines 2-5, wherein the sensors may include thermocouples that

measure temperature of the component and of airflow near the component).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention to modify the method of McKernan by adopting the teaching of

Thornton and determining that the environmental temperature of the storage device is

above a further pre-determined level in order to detect conditions of computer

components to predict a failure (see abstract, lines 1-2).

As to claim 11, McKernan discloses that the action comprises an act of

controlling the first apparatus by reducing the power of the vibrations caused by the

source of vibrations (e.g., see abstract, lines 9-13, wherein read errors are detected and

the speed of the medium is altered in response to the detected read errors). But

McKernan fails to disclose wherein: the source of vibrations is comprised by a first

apparatus and the storage device is comprised by a second apparatus; and the first and

the second apparatus are connected by a network link.

However, Thornton discloses wherein: the source of vibrations is comprised by a

first apparatus and the storage device is comprised by a second apparatus (see

paragraph 57, lines 7-21, wherein the storage medium can be part of a computer blade

that neighbors a component causing the vibration); and the first and the second

apparatus are connected by a network link (see paragraph 53, lines 1-8, wherein the

computer blade may include network interface logic for interfacing to a network).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of McKernan by adopting the teaching of Thornton and having the source of vibrations be comprised by a first apparatus and the storage device is comprised by a second apparatus; and the first and the second apparatus are connected by a network link in order to detect conditions of computer components to predict a failure (see abstract, lines 1-2).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HAMDY S. AHMED whose telephone number is (571)270-1027. The examiner can normally be reached on M-TR 7:30-5:00pm and Every 2nd Friday 7:30-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on 571-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matt Kim/
Supervisory Patent Examiner, Art
Unit 2186

/Hamdy S Ahmed/
Examiner, Art Unit 2186